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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,637	06/12/2001	Chang-Whan Jung	SAM-210	4260

7590 04/30/2004

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EXAMINER

NGUYEN, MINH T

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 04/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/879,637		JUNG ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Minh Nguyen		2816 <span style="float: right;"><i>pm</i></span>	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 12 April 2004.

2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 1-12 is/are pending in the application.

    4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1-12 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on 12 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All    b) ☐ Some    c) ☐ None of:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/12/04 has been entered.

### ***Claim Objections***

2. Claim 12 is objected to because of the following informalities: line 4, "the power supply voltage" should be changed to -- a second power supply voltage --, see claim 8, line 4, the term "a power supply voltage" is used to indicate VDD whereas the term used on line 4 of claim 12 is used to indicate VSS. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. '391, issued to Haraguchi.

As per claim 1, Haraguchi discloses a fuse circuit (Fig. 17) for a semiconductor integrated circuit, comprising:

a plurality of fuses (163 and 263); and

a like plurality of transmission circuits (there are two, the combination of TG11-TG14 is seen as one transmission circuit and the combination of TG21-TG24 is seen as the other one transmission circuit, they are clearly the same or "like"), each transmission circuit being coupled to a corresponding fuse of the plurality of fuses (as shown, fuse 163 is coupled to the only one transmission circuit TG11-TG14 and fuse 263 is coupled to the only one transmission circuit TG21-24); each transmission circuit for transferring signals from an input node (this is a function of a transmission gate) to an output node in response to a status of the corresponding fuse (depending on whether the corresponding fuse is blown or not, see column 5, lines 52-67), the input and output nodes of respective adjacent transmission circuits being coupled such that the transmission circuits are arranged in series (as shown, TG11-14 and TG21-24 are in series), an input signal (for example, X1.X2) which is applied to the input node of transmission circuit (TG14) is transferred to the output node of the last transmission circuit (TG24) when all of the transmission circuits in series (TG14 and TG24) are in active state (because TG14 and TG24 are both closed), however, either one (TG14 or TG24) is in inactive state (either one of the switches TG14 or TG24 is opened), the input signal (X1.X2) cannot be transferred to the output (SB).

As per claim 2, met since it is merely an operation of the circuit, i.e., when input signal (X1.X2) is selected, the fuses have identical status.

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As per claim 3, the first terminal of fuse (163) is connected to the first power supply which is GND and the second terminal of fuse (163) is connected to node (160).

As per claim 4, as shown, the transmission gate TG14 is connected as recited, the primary control terminal connected to node 167 and the secondary control terminal connected to the output of inverter 166; and the recited inverter 166 connected as recited.

As per claim 5, as shown TG14 includes PMOS and NMOS transistors connected as recited.

As per claim 6, the recited power supply voltage reads on the voltage of the signal X1.X2 since the voltage must come from a power supply voltage.

As per claim 7, the recited resistor reads on resistor 162 connected to the second power supply voltage VCC.

As per claim 8, same as claim 1.

As per claim 9, since each of the fuses has two ends, it stores one bit of information, and the information can be anything which includes the information relevant to the semiconductor integrated circuit.

As per claims 10-12, these claims are rejected for the same reasons noted in claims 4, 5 and 7, respectively.

#### ***Response to Arguments***

4. Applicant's arguments with regard to the claims have been considered, new interpretation has been provided.

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Regarding the argument in Haraguchi circuit, fuse 163 is connected to more than one corresponding transmission gate TG11-TG14.

As noted in the preceding rejection, consider the transmission circuit comprises transmission gates TG11-TG14, the recited limitation is met. It is clear that a transmission circuit can have more than one transmission gate and further can also include other elements. The claims can be amended to require the transmission circuit has only a single input and a single output to overcome the prior art.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is 571-272-1748. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Minh Nguyen  
Primary Examiner  
Art Unit 2816